

2020 Annual Statement – Large-scale renewable energy target met

The Large-scale Renewable Energy Target of 33,000 gigawatt hours (GWh) was met at the end of January 2021. Eligible generation from 1 February 2020 to 31 January 2021 reached an estimated 33,100 GWh¹.

In the 2020 calendar year, eligible large-scale renewable generation fell slightly short of the target at an estimated 32,300 GWh.² This was a strong result given the slower connection and ramping of new large-scale renewable power stations, high levels of large-scale renewable curtailment in response to record levels of rooftop solar, interconnector unavailability and the lower than average hydroelectric generation (that is eligible for Large-scale generation certificates) over the course of the year.

In 2021, the Clean Energy Regulator expects eligible generation could reach up to 40,000 GWh, materially exceeding the target³.

The outlook for large-scale renewables remains positive beyond 2021. Wind and solar power stations are now commercial as evidenced by the growth in new projects, underpinned by power purchase agreements which have been a strong lead indicator of financial close announcements. The Clean Energy Regulator recorded 3.7 gigawatts (GW) capacity of new power purchase agreement announcements in 2020, one-third of which were from corporates. This demonstrates a strong commitment to voluntary action from businesses.

Total⁴ renewables deployment continues to track above the Australian Energy Market Operator's (AEMO's) Integrated System Plan (ISP) 'step change' scenario, yet the 'central scenario' continues to be promoted by AEMO. Delivering transmission upgrades will be necessary to avoid a reduction in new large-scale renewables build in the medium term⁵. In the context of grid constraints, new flexible⁶ capacity to firm variable renewables becomes even more important to support ongoing renewables capacity additions, while maintaining reliability of supply.

¹ Generation estimate calculated from power station data collected by the Clean Energy Regulator, supplemented with generation data from utility-scale power stations from NEMReview and estimates for mid-scale power stations.

² Excludes waste coal mine gas.

³ A minimum of 37,000 GWh is expected. The 37,000 to 40,000 GWh range is based on new renewable energy power stations under construction that should commence generation in 2021.

⁴ Including small-scale rooftop solar.

⁵ AEMO's 2020 Integrated System Plan (page 13) "Without adequate investment in transmission infrastructure, new VRE [variable renewable energy] will be struggling to connect. This could in turn lead to the private sector under-investing in the new generation capacity needed ahead of the planned or unplanned retirement of existing generators."

⁶ This includes gas powered generation (GPG), batteries, pumped hydro and demand management. Each of these flexible capacity types provides somewhat different services, with GPG providing generation on demand and batteries and pumped hydro being a net source of load (i.e. time shift available generation, but with generation required to charge being less than generation out).



Large-scale generation certificate (LGC) spot prices finished the year at \$40.00 and have since dropped to \$33.50 as at 21 April 2021. They are expected to decline further over the forward years.

The 2020 Large-scale Renewable Energy Target has proven to be a ‘floor’ and not a ‘cap’ for investment. Commercial drivers now determine future build rates, potentially limited by grid constraints.

Achieving the 2020 Renewable Energy Target has been an enormous feat by so many participants in the renewables industry and electricity sector, supported by Australian Government agencies, including the Australian Renewable Energy Agency, the Clean Energy Finance Corporation and state and territory governments.

The certainty successive Australian Governments gave to the 2020 target since 2015 was critical for the Renewable Energy Target scheme architecture to work as designed.

The steep trajectory to the target resulted in the LGC price quickly rising close to its nominal cap by early 2016. This provided a very strong investment signal for new build to meet the target. The delivery of the target now continues to put downward pressure on LGC prices, and the generation from substantial additional new build assists in lowering wholesale electricity prices.

Minister Hunt, in his second reading speech on 27 May 2015, requested the Clean Energy Regulator report annually to Parliament on progress to the new target of 33,000 GWh which was legislated on 26 June 2015. This was for transparency and accountability.

As the 2020 target has been met, this is the last annual statement to Parliament on progress. Ongoing and timely reporting on data and information on the performance of renewables in Australia continues to be made available in the Quarterly Carbon Market Reports published by the Clean Energy Regulator on its website.